



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/788,158	02/16/2001	Russell M. Herring	33418-00035USPT	4288

7590 10/04/2004

Mark V. Muller, Esq.  
JENKENS & GILCHRIST  
3200 Fountain Place  
1445 Ross Avenue  
Dallas, TX 75202-2799

EXAMINER
----------

PHAM, BRENDA H

ART UNIT	PAPER NUMBER
----------	--------------

2664

DATE MAILED: 10/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/788,158

**Applicant(s)**

HERRING, RUSSELL M.

**Examiner**

Brenda Pham

**Art Unit**

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. Claims 1-9 have been examined.

#### ***Specification***

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

#### ***Double Patenting***

3. Claim 1, 2, 3-6, 7 and 9 of this application conflict with claims 1, 7, 8-11, 15 and 28, respectively of Application No. **09/788,787**. 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2664

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 3 is rejected under 35 U.S.C. 102(e) as being anticipated by The Applicant's Admitted Prior Art.

Claim 3, the applicant's admitted prior art teaches a method of establishing a plurality of simultaneous connections between a digital cellular radio **(210)** and a wireless system provider **(240)**, comprising the step of **(see figure 2)**:

establishing a voice connection between the digital cellular radio and the wireless system provider; and

establishing a digital data connection between the digital cellular radio and a wireless system provider wherein the voice connection and the digital data connection are being active at the same time and treated independently by the wireless system providers.

**{In the CDMA system, wherein two digital data stream are given different codes and transmitted truly simultaneously. The WSP may in this case treat the voice and data as two separate communication sessions, directing each to a different destination (page 14, paragraph 20)}.**

Art Unit: 2664

6. Claims 7-8 are rejected under 35 U.S.C. 102(b) as being anticipated by SHARMA et al (US 5,764,627).

Claim 7-8, SHARMA et al discloses a telephone for combining voice and data into a transmitted digitized data stream to be transmitted by way of a single digital wireless telephone call and for receiving a received digitized data stream including received voice data and received non-voice data, the telephone having a voice input, a sound output, a data input, a non-voice data output, and an antenna, the telephone comprising:

a vocoder (**306 of figure 3**) having an encoder including a digitized voice input and an encoded voice data output, and a decoder including a received voice data input and decoded voice data output;

a microphone (**Microphone 303**) operatively connected to an analog-to-digital converter, which provides a digitized voice data stream to the digitized voice input in response to the voice input;

a speaker (**Speaker 304**) operatively connected to a digital-to-analog converter which receives a digital data stream from the vocoder decoded voice output to provide the sound output;

a multiplexer (**MUX 310**) having a multiplexed data output, an encoded voice input, and a data input, the multiplexer operatively connected to receive the encoded voice output at the encoded voice input and the data at the data input so as to provide a transmitted digitized data stream;

a demultiplexer (MUX 310) having a converted data input, a voice data output, and a non-voice data output, the converted data input operatively connected to receive the received digitized data stream, the voice data output operatively connected to provide received voice data to the decoder received voice data input, and the non-voice data output operating to provide the received non-voice data to the non-voice data output.

**{The show and tell function 123 allows the user to establish a data over voice communication session. In this mode of operation, full duplex data transmission may be accomplished simultaneously with the voice communication between both sites. The hardware components of the present system include a means for transmitting multiplexed voice and data include a supervisory packet established through the cellular link. The voice portion of the voice over data transmission of the show and tell function is accomplished by receiving the user's voice through the telephone interface 301, 302 or 303 and the voice information is passed to the voice control circuit 306 where the digitized voice information is compressed using a voice compression algorithm. The digitized and compressed voice information is passed through dual port RAM circuit 308 to the main controller circuit 313. During quiet periods of the speech, a quiet flag is passed from voice control circuit 306 to the main controller 313 through a packet transfer protocol. Simultaneous with the digitizing compression and packetizing of the voice information is the receipt of the packetized digital information from the personal computer over interface line circuit 315 by main**

Art Unit: 2664

controller circuit 313. The main controller circuit 313 in the show and tell function of the present system must efficiently and effectively combine the digitized voice information with the digital information for transmission over the telephone line via telephone line interface circuit 309. The main controller circuit 313 dynamically changes the amount of voice information and digital information transmitted at any given period of time depending upon the quiet time during the voice transmissions. For example, during a quiet moment where there is no speech information being transmitted, main controller circuit 313 ensures that higher volume of digital data information be transmitted over the telephone line interface in lieu of digitized voice information, (column 12, lines 10-45).}

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art in view of SHARMA et al (US 5,764,627).

Claim 1, the applicant's admitted prior art teach a method of establishing a circuit-switched data call through a Public Switch Telephone Network:

establishing a circuit-switched data call connection from a mobile phone to a destination;

routing the call through a pair of modems connected in-line with the call connection path and sending the digital data stream from the mobile phone to the destination through the pair of modems {**Figure 2 is a prior art illustration of a digital wireless cellular circuit-switched data connection. The digital data 335 passes around the vocoder 345, 355. At the MSC 240, the digital data 335 passes to one of a bank of PSTN type modems 330. The modem signal is then sent out over the PSTN 250 as a standard modem signal, where it is routed over the PSTN 250 to the destination and is terminated by another modem 340 (see figure 2).**}

The prior art does not teach the step of multiplexing non-voice digital data with vocoded voice digital data to form a multiplexed digital data stream.

SHARMA et al, in the same field of endeavor, teach this limitation.

**{SHARMA et al teach the show and tell function 123 of the present system allows the user to establish a data over voice communication session. In this mode of operation, full duplex data transmission may be accomplished simultaneously with the voice communication between both sites. The voice portion of the voice over data transmission of the show and tell function is accomplished by receiving the user's voice through the telephone interface 301, 302 or 303 and the voice information is digitized by the digital telephone circuit 305. The digitized voice information is passed to the voice control circuit 306 where the digitized voice information is compressed using a voice compression algorithm. The digitized data compressed voice information is passed through dual port RMA circuit 308 to the main controller circuit 313.**



**Simultaneous with the digitizing compression and packetizing of the voice information is the receipt of the packetized digital information from the personal computer over interface line circuit 315 by the main controller circuit 313. Main controller circuit 313 in the show and tell function of the present system must efficiently and effectively combine the digitized voice information with the digital information for transmission over the telephone line via telephone line interface circuit 309. Main controller circuit 313 dynamically changes the amount of voice information and digital information transmitted at any given period of time depending upon the quiet times during the voice transmissions. For example, during a quiet moment where there is no speech information being transmitted, main controller circuit 313 ensures that a higher volume of digital data information be transmitted over the telephone line interface in lieu of digitized voice information (column 12, lines 10-45)).**

Therefore, it would have been obvious to those having ordinary skill in the art at the invention was made to implement a method and apparatus, such as that taught by SHARMA et al, in the applicant's admitted prior art, for transmitted digital voice data concurrent with the transfer of digital information data.

Claim 2, the applicant's admitted prior art further teach establishing a circuit-switched data call connection from a destination to a mobile phone, wherein the mobile phone is allowed to complete the call connection only if the call service option specifies circuit-switched data.

**{When the mobile telephone 210 requests a connection from the WSP, the mobile unit 210 must specify what type of connections is desired. This is called a Service Option. When the circuit-switched data connection is requested, a Service Option specifying circuit-switched data is included in the call request. The WSP responds by placing a call through a PSTN modem 330 out over the PSTN 250 to the destination 340, 350. Thus, if the call is to be a circuit-switched data call, the mobile unit 210 must respond to the WSP's page in a special manner, indicating that it will accept the call only as a circuit-switched data call. It does this by specifying circuit-switched data as the SO. The WSP then re-routes the call around the vocoder 355 and through a modem 330 connections (page 10)}.**

Claims 4 and 5, as explained in the rejection statement of claim 3, the applicant's admitted prior art teaches all claimed limitations of claim 3 (parent claim). The applicant's admitted prior art does not specifically teach wherein the voice connection and the digital data connection are made to the same destination.

**{SHARMA et al teach the show and tell function, which allows the user to establish a data over voice (DOV) communications session. When the user is transmitting data to a remote location similarly equipped, the user is able to talk to the person over the telephone line while concurrently transferring the data. This voice over data function is accomplished in the hardware components of the present system. It digitized the voice and transmitted it in a dynamically**

Art Unit: 2664

**changing allocation of voice data and digital data multiplexed in the same transmission. (Figure 2 shows a Show and Tell 123).}**

Claim 6, although the applicant's admitted prior art and SHARMA et al do not teach where the digital data connection carries information about the voice connection, it would have been obvious to those having ordinary skill in the art at the time of the invention was made to implement the step of transmit the digital data connection carries information about the voice connection to inform the user that voice connection will be established.

Claim 9, Applicant's admitted prior art teach **(see figure 2)** a system for managing a combined data stream, comprising:

a mobile digital telephone **(210 of figure 2)**;

a mobile switching center **(240 of figure 2)** including a first modem **(PSTN MODEM 330)**, the mobile switching center **(240)** operatively coupled to the telephone **(mobile unit 210)** so as to receive a representation of the amplified output data stream from the telephone and to send the representation of the amplified output data stream to the first modem **(PSTN MODEMS 330)**, and to receive a representation of the received digital data stream to the telephone **(210)**;

a central office **(260)** connected to the first modem **(PSTN MODEM 330)**; and

a destination **(350)** including a second modem **(PSTN MODEM 340)** connected to the central office **(260)**.

The applicant's admitted prior art does not teach a mobile digital telephone comprising the elements as recited in claim 28.

SHARMA et al, in the same field of endeavor, teach a telephone (**see figure 3**) comprising:

a vocoder (**306**) having an encoder including a digitized voice input and an encoded voice data output, and a decoder including a received voice data input and decoded voice data output **{The CODEC of the voice control circuit 306 transfers digitized voice information in a compressed format to multiplexor circuit 310 to analog telephone line interface 309 (column 8, lines 28-32)}**;

a microphone (**Microphone 303**) operatively connected to analog-to-digital converter (**Digital Telephone CODEC 305**) which provides a digitized voice data stream to the digitized voice input in response to the voice or sound input **{Digital Telephone CODEC 305 does digital to analog (D/A) conversion, analog to digital (A/D) conversion, coding/decoding, gain control and is the interface between the voice control DSP circuit 306 (column 8, lines 23-28)}**;

a speaker (**speaker 304**) operatively connected to a digital-to-analog converter (**Digital Telephone CODEC 305**) which receives a digital data stream from the vocoder (**306**) decoded voice output to provide the sound output; **{The digital telephone CODEC circuit 305 interfaces with the voice control digital signal processor (DSP) circuit 306 which includes a voice control DSP and CODEC. This circuit does digital to analog (D/A) conversion, analog to digital (A/D) conversion,**

**coding/decoding, again control and is the interface between the voice control DSP circuit 306 and the telephone interface (column 8, lines 23-33));**

a multiplexer (**MUX 310**) having multiplexed data output, an encoded voice input, and a data input, the multiplexer operatively connected to receive the encoded voice output at the encoded voice input and the data at the data input so as to provide a transmitted digitized data stream **{Multiplexor (MUX) circuit 310 selects between the voice control DSP circuit 306 and the data pump DSP circuit 310 for transmission of information on the telephone line through telephone line interface circuit 309});** and

a demultiplexer (**MUX 310**) having a converted data input, a voice data output, and a non-voice data output, the converted data input operatively connected to receive the received digitized data stream, the voice data output operatively connected to provide received voice data to the decoder received voice data input, and the non-voice data output operating to provide the received non-voice data to the non-voice data output.

It would have been obvious to those having ordinary skill in the art at the time of the invention was made to implement the telephone, such as that taught by SHARMA et al, in applicant's admitted prior art to provide the telephone function that is more sophisticated than a standard telephone. The telephone in SHARMA converts the voice into a digital signal, which can be processed with compressed and transmitted as digital voice data concurrent with the transfer of digital information data.

Art Unit: 2664

**Conclusion**

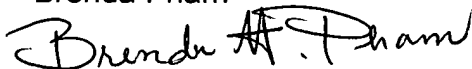
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brenda Pham whose telephone number is (571) 272-3135. The examiner can normally be reached on Monday-Friday from 9:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin, can be reached on (571) 272-3134.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

September 24, 2004

Brenda Pham

A handwritten signature in cursive script that reads "Brenda A. Pham". The signature is written in dark ink and is positioned below the printed name "Brenda Pham".